IN THE CLAIMS:

1-48. (Cancelled)

49. (Previously Presented) A file management apparatus for managing files stored therein, comprising:

a file storage unit operable to store a file that contains at least two pieces of data, each piece of data being video data or other data, each piece of video data containing a piece of numerical information being a time code;

a segment judging unit operable to read a piece of data from the file stored in the file storage unit, make an attempt to extract a piece of numerical information being a time code from the read piece of data, and judge whether the piece of numerical information has been extracted from the read piece of data, the segment judging unit further reads another piece of data from the file stored in the file storage unit, extracts a piece of numerical information being a time code from said another piece of data, and judges whether the extracted two time codes are continuous in time series; and

a segment generating unit operable, if the segment judging unit judges that the piece of numerical information has not been extracted from the read piece of data, to generate a segment composed of pieces of video data, each of which contains a piece of numerical information being a time code, that are present in the file until immediately before the read piece of data, the segment generating unit further generates a segment that contains the read two pieces of video data if the segment judging unit judges that the two time codes are continuous, wherein the segment generating unit includes:

a position information storage unit;

a position obtaining unit operable, if the segment judging unit judges that the two pieces of numerical information are continuous, to obtain two pieces of position information respectively of the two pieces of data from the file storage unit; and

a position information write unit operable to, recognizing the two pieces of data as the segment, generate a segment name for identifying the recognized segment, and write into the position information storage unit (ii) the segment name and (ii) the two pieces of position information as an entry that corresponds to the segment name, the two pieces of position information indicating a storage position of the segment, wherein if the segment judging unit judges that the two pieces of numerical information are not continuous, the segment generating unit generates a segment that contains one of the read two pieces of data, and generates another segment that contains the other of the read two pieces of data and if the segment judging unit judges that the two pieces of numerical information are not continuous, the position obtaining unit obtains two pieces of position information respectively of the two pieces of data from the file storage unit, and

the position information write unit, recognizing the two pieces of data as two different segments, generates two segment names for identifying the two segments, and writes into the position information storage unit (i) the two segment names and (ii) the two pieces of position information as entries that respectively correspond to the two segment names, the two pieces of position information indicating storage positions of the two segments, respectively.

50. (Previously Presented) The file management apparatus of Claim 49 further comprising:

an access request receiving unit operable to receive a segment set access request specifying a segment set name, each segment set being composed of all segments in a file, and each segment set name including a name of the file and a character sequence unique to segment set names;

a position information read unit operable to identify a file to which a segment set corresponding to the specified segment set name belongs, and read, from the position information storage unit, pieces of position information corresponding to all segments belonging to the identified file, recognizing the read pieces of position information as a piece of position information of the segment set; and

a segment set access unit operable to access the segment set in the file storage unit by referring to the piece of position information of the segment set.

51. (Previously Presented) The file management apparatus of Claim 50, wherein

each piece of segment position information includes (1) an address indicating a file start storage position of a file to which the segment belongs, and either (2-1) (a) an address offset indicating a size of a portion between the file start and a start of the segment and (b) an address offset indicating a size of a portion between the file start and an end of the segment, or (2-2) (a) an address offset indicating a size of a portion between the file start and a start of the segment and (c) a size of the segment.

52. (Previously Presented) The file management apparatus of Claim 51 further comprising:

a receiving unit operable to receive a segment set name obtainment request;

a segment set name output unit operable to, after the receiving unit receives the segment set name obtainment request, refer to the position information storage unit and output to outside the file management apparatus a list of segment set names which each include (1) a file name of a file to which the segment set belongs and (2) a character sequence unique to segment set names.

53. (Previously Presented) The file management apparatus of Claim 52, wherein

each piece of data includes a piece of video data to which a timecode has been assigned; and

the segment judging unit judges whether two timecodes assigned to two pieces of video data are continuous.

54. (Previously Presented) The file management apparatus of Claim 49 further comprising:

an access request receiving unit operable to receive an access request specifying an access target name;

a judgment unit operable to judge whether the access target name is a segment set name or a file name, each segment set being a set of all segments included in one file;

a position information read unit operable to read, from either the file storage unit or the position information storage unit, a piece of position information corresponding to the access target name judged by the judgment unit; and

an access unit operable to access either a segment set or a file stored in the file storage unit by referring to the read piece of position information.

55. (Previously Presented) The file management apparatus of Claim 54, wherein

the judgment unit judges that the access target name is a segment set name when the access target name includes a name of a file stored in the file storage unit and a character sequence unique to segment set names.

56. (Previously Presented) The file management apparatus of Claim 49 further comprising:

an access request receiving unit operable to receive a segment partial set access request specifying a file name and a condition, each segment partial set being a set of one or more segments in one file;

a position information read unit operable to read, from the position information storage unit, pieces of position information corresponding to all segments belonging to the specified file and satisfying the specified condition, recognizing the read pieces of position information as a piece of position information of the requested segment partial set; and

a segment partial set access unit operable to access the segment partial set by referring to the piece of position information of the segment partial set.

57. (Previously Presented) The file management apparatus of Claim 56, wherein

each piece of data includes a piece of video data to which a timecode has been assigned, and

the segment judging unit judges whether two timecodes assigned to two pieces of video data are continuous.

58. (Previously Presented) A file management method for use in a file management apparatus for managing files stored therein, comprising:

a file storage step for storing a file that contains at least two pieces of data, each piece of data being video data or other data, each piece of video data containing a piece of numerical information being a time code;

a segment judging step for reading a piece of data from the file stored in the file storage step, making an attempt to extract a piece of numerical information being a time code from the read piece of data, and judging whether the piece of numerical information has been extracted from the read piece of data, the segment judging step, including reading another piece of data from the file stored in the file storage unit, extracting a piece of numerical information being a time code from said another piece of data, and judging whether the two time codes are continuous in time series; and

a segment generating step for, if the segment judging step judges that the piece of numerical information has not been extracted from the read piece of data, generating a segment composed of pieces of video data, each of which contains a piece of numerical information being a time code, that are present in the file until immediately before the read piece of data, the segment generating step further generating a segment that contains the read two pieces of video data if the segment judging step results in a judgment that the two time codes are continuous, wherein the file management apparatus further includes a position information storage unit, and the segment generating step includes:

a position obtaining step for, if the segment judging step judges that the two time codes are continuous, obtaining storage positions of the two pieces of video data from the file storage unit; and

a position information write step for, recognizing the two pieces of video data as a segment, generating a segment name for identifying the recognized segment, and writing into the position information storage unit (i) the segment name and (ii) the two pieces of position information as an entry that corresponds to the segment name, the two pieces of position information indicating storage positions of the segment, wherein

if the segment judging step judges that the two time codes are not continuous, the segment generating step generates a segment that contains one of the read two pieces of video data, and generates another segment that contains the other of the read two pieces of video data, wherein

if the segment judging step judges that the two time codes are not continuous, the position obtaining step obtains storage positions of the two pieces of video data from the file storage unit, and

the position information write step, recognizing the two pieces of video data as two different segments, generates two segment names for identifying the two segments, and writes into the position information storage unit (i) the two segment names and (ii) the two pieces of position information as entries that respectively correspond to the two segment names, the two pieces of position information indicating storage positions of the two segments, respectively.

59. (Previously Presented) A computer-readable recording medium that stores a file management program for use in a file management apparatus for managing files stored therein, the file management program comprising:

a file storage step for storing a file that contains at least two pieces of data, each piece of data being video data or other data, each piece of video data containing a piece of numerical information being a time code;

a segment judging step for reading a piece of data from the file stored in the file storage step, making an attempt to extract a piece of numerical information being a time code from the read piece of data, and judging whether the piece of numerical information has been extracted from the read piece of data, the segment judging step including reading another piece of data from the file stored in the file storage unit, extracting a piece of numerical information being a time code from said another piece of data, and judging whether the two time codes are continuous in time series; and

a segment generating step for, if the segment judging step judges that the piece of numerical information has not been extracted from the read piece of data, generating a segment composed of pieces of video data, each of which contains a piece of numerical information being a time code, that are present in the file until immediately before the read piece of data, the segment generating step further generating a segment that contains the read two pieces of video data if the segment judging step results in a judgment that the two time codes are continuous, wherein the file management apparatus further includes a position information storage unit, and the segment generating step includes:

a position obtaining step for, if the segment judging step judges that the two time codes are continuous, obtaining storage positions of the two pieces of video data from the file storage unit; and

a position information write step for, recognizing the two pieces of video data as a segment, generating a segment name for identifying the recognized segment, and writing into the position information storage unit (i) the segment name and (ii) the two pieces of position information as an entry that corresponds to the segment name, the two pieces of position information indicating storage positions of the segment, wherein if the segment judging step judges that the two time codes are not continuous, the segment generating step generates a segment that contains one of the read two pieces of video data, and generates another segment that contains the other of the read two pieces of video data, wherein

if the segment judging step judges that the two times codes are not continuous, the position obtaining step obtains storage positions of the two pieces of video data from the file storage unit, and

the position information write step, recognizing the two pieces of video data as two different segments, generates two segment names for identifying the two segments, and writes into the position information storage unit (i) the two segment names and (ii) the two pieces of position information as entries that respectively correspond to the two segment names, the two pieces of position information indicating storage positions of the two segments, respectively.